database from a US national commercially-insured population (January 1, 2003-September 30, 2008). Women aged ≥18 were selected with ≥2 BC diagnoses on different dates within 90 days. The date of the first BC diagnosis was the index date for case cohort. The control cohort (without BC diagnosis) was selected with a 3:1 ratio by matching to the cases based on index date (same year and month), age (5-year range), region, employer, and health insurance type. Both cohorts were required to have continuous enrollment for at least 6-months prior to and 12-months after the index date. Generalized linear model (GLM) was applied to evaluate the 1-year post-index cost difference between cases and controls with adjustment of demographics, comorbid conditions, and pre-index total health care cost. **RESULTS:** Based on the selection criteria, 140,228 patients were included with mean (SD) age of 52.1 (7.5) years. The total 1-year health care costs for cases and controls were $61,167 and $6,296, respectively ($p < 0.001$). GLM predicted that the adjusted incremental health care cost was $42,401 ($p < 0.001$) per BC patient per year, which included 12%, 86%, and 2% for inpatient, outpatient, and prescription use. **CONCLUSIONS:** This study demonstrated that breast cancer is an expensive disease condition, which consumes on average $40,000 more per patient within the first year of diagnosis for the US health care system. Most of the direct health care cost is spent in outpatient care settings.

PCN42

INDIRECT COST ASSOCIATED WITH BREAST CANCER TO US EMPLOYERS

Fu AZ[1], Chen L[2], Christiansen NP[3], Sullivan SD[4]
[1]Cleveland Clinic, Cleveland, OH, USA, [2]Sanofi-Aventis, Bridgewater, NJ, USA, [3]Medical University of South Carolina, Charleston, SC, USA, [4]University of Washington, Seattle, WA, USA

OBJECTIVES: Few data exist on the impact of breast cancer (BC) on absenteeism and short-term disability (STD) to employers. This study was undertaken to estimate BC related indirect cost impacts within the US population. **METHODS:** This was a retrospective matched cohort study using a large health care claims database from a US national commercially-insured population (2003–2007). Women aged ≥18 were selected with ≥2 BC diagnoses on different dates within 90 days. The date of the first BC diagnosis was the index date for case cohort. The control cohort (without BC diagnosis) was selected with 1:1 matching to cases based on index date (same year and month), age (5 year range), region, employer, and health insurance type. Continuous enrollment for at least 6-months prior to and 12-months after the index date was required for both cohorts. Indirect cost was measured by days of absenteeism and STD, multiplied by age-matched average wage rates from Bureau of Labor Statistics. Two-part model was used to assess the 1-year post-index indirect cost difference between cases and controls with the adjustment of demographics, comorbid conditions, and pre-index total health care cost. **RESULTS:** Based on the inclusion criteria, 856 and 2668 patients were selected for absenteeism and STD outcomes, respectively. Costs of absenteeism were $4972 and $2937, and costs of STD were $7199 and $653 for cases and controls, respectively, within the post-index year (both $p < 0.001$). Two-part models predicted that the adjusted incremental costs for absenteeism and STD were $1911 and $6157 ($p < 0.001$) per BC patient per year. **CONCLUSIONS:** This study demonstrated that breast cancer is associated with approximately $8000 more in indirect cost per patient to the employer within the first year of diagnosis.

PCN43

INITIAL COSTS OF TREATMENT AMONG STAGE IV PROSTATE CANCER (PCA) CHEMOTHERAPY PATIENTS IN SEER-MEDICARE

Onukwugha E, Mullins CD[1], Seal B[2], Hussain A[3]
[1]University of Maryland School of Pharmacy, Baltimore, MD, USA, [2]Sanofi-Aventis Pharmaceuticals, Bridgewater, NJ, USA, [3]University of Maryland School of Medicine, Baltimore, MD, USA

OBJECTIVES: Little is known about how resource utilization in the initial treatment period among advanced stage PCa patients differs between those receiving versus those not receiving chemotherapy, even for docetaxel, the earliest approved agent for metastatic disease. **METHODS:** We analyzed patients aged 66 or older from the linked Surveillance, Epidemiology, and End Results & Medicare (SEER-Medicare) database. Patients were diagnosed with PCa between 2000 and 2005 and were followed until censoring. We restricted the cohort to patients with incident Stage IV disease (AJCC-TNM classification) and at least 24 months of post-diagnosis follow-up data. Initial costs (Medicare payments) were defined as costs incurred from 2 months before diagnosis to 12 months post-diagnosis and patients were stratified according to whether they received chemotherapy, and subsequently, whether they received docetaxel. **RESULTS:** Application of the inclusion criteria resulted in 4,088 Stage IV PCa patients, of which 23% (N = 933) reported chemotherapy. Among chemotherapy users, 63% (N = 592) received docetaxel-containing regimens. Initial costs totaled $78.3M while PCa-specific initial costs totaled $49.9M. For the full sample (F), chemotherapy subsample (C), and no chemotherapy subsample (NC), the proportions of total costs attributed to PCa-specific inpatient costs (IC), non-PCa-specific IC, PCa-specific outpatient costs (OC), non-PCa-specific OC, and other costs were distributed as follows: 1) PCa-specific IC: F = 26.5% [$20.7M]; C = 23.4% [$4.7M]; NC = 27.5% [$16.0M] 2) non-PCa-specific IC: F = 12.3% [$9.7M]; C = 10.3% [$2.1M]; NC = 13.1% [$7.6M] 3) PCa-specific OC: F = 35.9% [$28.1M]; C = 42.1% [$8.5M]; NC = 33.8% [$19.6M] 4) non-PCa-specific OC: F = 20.8% [$16.3M]; C = 22.5% [$4.5M]; NC = 20.1% [$11.7M] and 5) Other costs: F = 4.5% [$3.5M]; C = 1.7% [$0.3]; NC = 5.5% [$3.2M]. The proportion of PCa-specific outpatient costs was higher in the docetaxel subsample compared to the chemotherapy subsample. **CONCLUSIONS:** Among patients diagnosed with advanced disease, PCa-specific inpatient and outpatient costs accounted for two-thirds of Medicare payments, with PCa-specific outpatient costs gaining larger shares in the chemotherapy and docetaxel subsamples.

PCN44

ASSESSMENT OF HEALTH CARE UTILIZATION AND COST AMONG METASTATIC MELANOMA PATIENTS IN A US MANAGED CARE POPULATION

Ray S, Ganguli A, Luo Y, Xu Y
Abbott Laboratories, Abbott Park, IL, USA

OBJECTIVES: Metastatic Melanoma (MM) is associated with serious clinical and humanistic burden. This study calculated the cost and medical resource utilization attributable to MM in a large geographically diverse commercially insured US population. **METHODS:** The MEDSTAT MarketScan® database (1/1/2000–12/31/2008) identified patients aged ≥18 years with ≥2 melanoma claims (ICD-9-CM 172.xx, V10.82), or ≥1 melanoma claim and ≥1 chemotherapies. After excluding patients with other malignant tumors and those with <1 month post-index or <6 months of pre-index, 2 mutually exclusive cohorts were formed. Patients with diagnosis of metastasis or related chemotherapies were categorized as MM, and the remaining as non-MM. Index-date was the first date of diagnosis of melanoma or MM respectively. Mean estimates of per-patient-per-month (PPPM) resource utilization and cost (in 2008 dollars) within each group (pre vs. post) were statistically compared. Attributed cost of metastasis was the difference in mean differences (post-pre) between the groups. **RESULTS:** The study identified 407 MM and 13,796 non-MM patients (mean age 48.8 and 47.8 years, respectively). For the MM patients, PPPM utilization increased 3 to 12 times from the pre-metastatic period (inpatient: 0.007 to 0.090, emergency room: 0.010 to 0.044, office: 0.724 to 2.592, all with $p < 0.0001$, and hospital outpatient: 0.226 to 1.029, $p = 0.0442$), while the PPPM total cost increased 7 times ($803.2 to $5,439.9, $p < 0.0001$). For the non-MM patients, utilization increased marginally following melanoma diagnosis (inpatient: 0.005 to 0.008, emergency room: 0.012 to 0.016, office: 0.696 to 1.214, and hospital outpatient: 0.136 to 0.291, all $p < 0.0001$). The total cost for non-MM patients doubled following diagnosis of melanoma ($432.3 to $955.2, $p < 0.0001$). Upon metastasis, the disease attributed cost increased 9 times ($523 to $4638). **CONCLUSIONS:** The cost burden from resource utilization increases substantially with metastasis of melanoma. Treatments that significantly delay disease progression in these patients will reduce this burden.

PCN45

HEALTH CARE RESOURCE UTILIZATION (HRU) IN ADVANCED OVARIAN CANCER-FINDINGS FROM LINKED SEER-MEDICARE DATA

Parthan A[1], Gao SK[2], Song R[3], Borker R[2], Langeberg WJ[2], Teitelbaum A[3], Oglesby A[2]
[1]i3 Innovus, San Francisco, CA, USA, [2]Amgen, Inc., Thousand Oaks, CA, USA, [3]i3 Innovus, Eden Prairie, MN, USA

OBJECTIVES: To estimate the health care costs, treatment patterns, and health care resource use in advanced ovarian cancer (aOC) patients receiving first line chemotherapy. **METHODS:** Incident aOC patients between 2000–2005 were identified from the linked Surveillance, Epidemiology and End-Results (SEER)/Medicare data file using an ICD-9 code 56.9 with a "distant" tumor in the SEER staging variable. Women ≥65 years at the time of aOC diagnosis (i.e. index date), with at least three months of data preceding the initial diagnosis were included. Subjects were followed from 30 days prior to index date until the first occurrence of the following: receipt of a 2nd line treatment given after a minimum of 90 days treatment free interval, death or the end of the Medicare claims data (i.e., December 2007). Measures of overall HRU included hospitalizations, outpatient visits, physician visits, hospice care, home health care, and skilled nursing facility utilization. Costs of each HRU event were estimated by summing all Medicare payments, primary insurer payments, patient copayments and deductibles for services in the claims files. Average health care costs per event per patient (e.g. hospitalization) are calculated as total cost per event divided by number of patients with the event. **RESULTS:** A total of 3895 aOC subjects receiving first-line chemotherapy were included in the analysis. Mean age was 75 years. Carboplatin+paclitaxel (73%), carboplatin alone (8.5%), and carboplatin+docetaxel (7%) were the three most commonly used 1st line chemotherapeutic agents. The mean 1st line treatment duration was 128 days (SD 95.8). The rate of hospitalization was 1.5 per person-year. Mean hospitalization cost per patient was $12,997 (SD $10,499). Mean SNF and Hospice Care costs per patient were $7,509 (SD $7,171) and $7,025 (SD $11,370) respectively. **CONCLUSIONS:** Carboplatin-paclitxel combination was the most commonly used first line chemotherapeutic regimen. In aOC patients, hospitalization costs were substantial in women with aOC receiving 1st line chemotherapy.

PCN46

FIRST YEAR INSURER AND PATIENT COSTS ASSOCIATED WITH HEPATOCELLULAR CARCINOMA DIAGNOSIS IN THE U.S. MANAGED CARE POPULATION

Tsong W, Ray S
Abbott Laboratories, Abbott Park, IL, USA

OBJECTIVES: To evaluate insurer and patient cost increases during the first year following hepatocellular carcinoma (HCC) diagnosis. **METHODS:** Subjects in the Medstat MarketScan® claims database (July 1, 2005–June 30, 2008) were included for analysis if they were age ≥18 years, had ≥1 HCC claim (ICD9 155.0) from July 1, 2006 to June 30, 2007, no cancer claims in the year prior to the first HCC claim (index), and a full year of pre-index data. Per patient per month (PPPM) cost estimates were compared pre- and post- diagnosis with a sign rank test. **RESULTS:** The analytical dataset included 440 patients: mean age 53 years, 61% male, mean follow-up 256